

REMARKS

Entry of the foregoing amendments and reconsideration of the above identified application are respectfully requested in view of the following remarks.

I. Claim Status and Explanation of Amendments:

Claims 1-19 were pending prior to this submission. The Examiner has rejected all of the pending claims.

Claims 16-17 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-3, 5-11 and 13-19 have been rejected under 35 U.S.C. §102(e) as being anticipated by the IDS-cited reference to Nozawa *et al.* (U.S. Patent 6,587,505, hereafter “Nozawa Pat. ‘505”). Claims 1 and 9 have been rejected under 35 U.S.C. §102(b) as being anticipated by another Nozawa *et al.* reference (Publication No.: JP2000-209587, hereafter “Nozawa’s JP2000-209587”). Claims 4 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nozawa’s JP2000-209587 in view of Harada (U.S. Patent 6,075,559, hereafter “Harada”).

With this amendment, claims 1, 2, 8-10 and 18 have been amended. Claims 3, 11, and 16-17 have been cancelled without prejudice or disclaimer. In particular, claims 3 and 11 were cancelled to incorporate the subject matter of these claims into claims 1 and 8, respectively. Claims 16-17 were cancelled to address the formality and statutory issues raised by the §101 rejection in the outstanding Office Action. No new matter has been introduced by this amendment.

II. Response to Objections:

The Examiner has objected to the title of the invention as not being descriptive of the invention to which the claims are directed.

In response to this objection, the title has been amended to recite “IMAGE PROCESSING APPARATUS AND METHOD OF ENCODING IMAGE DATA THEREFOR.” Applicant submits that the amended title is now more indicative of the invention to which the claims are directed.

In view of the foregoing amendment, Applicant believes that the objection has now been resolved and respectfully requests withdrawal of the objection.

III. Response to Rejections under 35 U.S.C. §101:

Claims 16-17 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. In particular, the Examiner has noted that claims 16-17 are directed to a program embodying functional descriptive material.

Applicant has cancelled claims 16-17, and has incorporated the subject matter of cancelled claims 16-17 into claims 18 and 19, respectively. Therefore, claims 18 and 19 have been amended to embody the “program” on a “computer-readable medium,” as suggested by the Examiner (Office Action, page 2).

Applicant therefore submits that the rejection under §101 is moot, in view of the amendments presented herein.

IV. Response to Claim Rejections:

In the Office Action, the Examiner has rejected under 35 U.S.C. 102(e) claims 1-3, 5-11, 13-19 as being anticipated by Nozawa Pat. ‘505. Claims 1 and 9 stand further rejected under §102(b) as being anticipated by a machine-translated disclosure of Nozawa’s JP2000-209587. Claims 4 and 12 stand rejected under §103(a) as being unpatentable over Nozawa’s JP2000-209587 in view of Harada.

The Applicant respectfully traverses the above rejections for the following reasons.

Applicant has amended independent claims 1 and 9 to incorporate the subject matter of cancelled claims 3 and 11, respectively. Independent claim 8 has been amended to add similar limitations as those added to claims 1 and 9.

In addition, the claimed invention has been further distinguished from the cited references by amending the independent claims to recite that, *inter alia*, the first and second encoding means/steps employ a common encoding scheme using subbands. The encoding

scheme using subbands is thoroughly disclosed at least on ¶¶ [0080] – [0091] in the published version of the present application.

Amended independent claim 1 now recites:

1. An image processing apparatus for encoding image data in which a still picture frame of an image quality higher than a prescribed imaging quality is mixed in moving picture data composed of successive moving picture frames having the prescribed imaging quality, comprising:

first encoding means for encoding the moving picture frames in the moving picture data and, with regard to the still picture frame in the moving picture data, generating moving picture part data, which has a quality equivalent to that of moving picture frames, from the still picture frame and encoding the moving picture part data, thereby generating moving picture encoded data;

second encoding means for encoding difference data, the difference data being the result of removing the moving picture part data from the still picture frame;

additional-information generating means for generating correspondence information and identification information, the correspondence information correlating the moving picture part data and corresponding difference data, and the identification information specifying the moving picture part data contained in the moving picture encoded data; and

output means for outputting the moving picture frame encoded data, the difference encoded data, the correspondence information and the identification information as result of encoding the moving picture data;

wherein said first encoding means and second encoding means employ a common encoding method using subbands, and said first encoding means generates the moving picture part data from the still picture frame using a discrete wavelet transform.

Nozawa is drawn to an image processing apparatus and method for efficiently encoding/decoding an image signal. In one relevant passage (C10, L40-49), as quoted by the Examiner, Nozawa discloses a “high resolution video signal supplied to the video input terminal 801 is transmitted to a low pass filter 805 and a high pass filter 811. The high resolution video signal is divided into a low frequency signal and a high frequency signal by the low pass filter 805 and high pass filter 811 and supplied to down-samplers 806 and 812, respectively. FIG. 9A shows an example of the frequency division by the low pass filter and high pass filter 811.” At least at C9, L21 through C11, L60, Nozawa discloses that encoding and decoding is performed by orthogonal transformation.

Nozawa's JP2000-209587 is a priority document of Nozawa's Pat. '505, and it appears to have been used in order to qualify as a reference under 35 U.S.C. §102(b). As best understood from the machine-translated disclosure, Nozawa's JP2000-209587 appears to disclose essentially similar matter to that of Pat '505. Accordingly, Nozawa's JP2000-209587 does not disclose or suggest all the limitations of the inventions defined by Applicant's claims, as amended; and provides no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

In view of the above, Applicant asserts that neither of the Nozawa references discloses or suggests all the limitations of the inventions defined by Applicant's claims, as amended. In particular, Nozawa does not disclose the use of a discrete wavelet transform (e.g., discrete wavelet transformation). On the contrary, Nozawa appears to teach away from the instant invention because Nozawa's "low resolution video coding circuit 803 performs processes such as orthogonal transformation." There is no indication or suggestion that orthogonal transformation is analogous to discrete wavelet transform; and moreover, the disclosure does not recite or imply that said orthogonal transformation is applied to the still image. In addition, neither of the Nozawa references discloses that the first and second encoding means/steps employ a common encoding scheme using subbands, which are germane to discrete wavelet transformation.

Harada discloses a vehicle image processing method of compressing image data photographed from a vehicle while the vehicle is moving; the method of compression being based on the degree of change from one image to the next on a series of photographs taken as the vehicle advances on a road. Each photograph is divided into a first area with slow change in imagery and a second area with a fast change in imagery. The compression process in the first area is different from that of the second area.

Harada does not disclose an image processing apparatus for encoding image data in which a still picture frame of an image quality higher than a prescribed imaging quality is mixed in moving picture data composed of successive moving picture frames having the prescribed imaging quality, comprising: first and second encoding means; wherein said first encoding means and second encoding means employ a common encoding scheme using

subbands, said first encoding means generating the moving picture part data from the still picture frame using a discrete wavelet transform, as claimed by Applicant.

As a result, the cited references, taken alone or in combination, neither teach nor suggest all the limitations of the exemplary embodiments of the instant invention as represented at least by amended independent claims 1, 8 and 9. Claims 2, 4-7, and 18-19 depend from claim 1; claims 10-11 and 13-15 depend from claim 9. Therefore, Applicant submits that all of the pending claims, as amended, are believed distinguishable from the cited references at least for the reasons outlined above. Accordingly, Applicant respectfully requests that the rejections be now withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

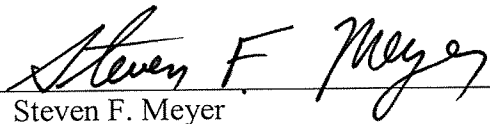
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-5245.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-5245.

Respectfully submitted,
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